

WHAT IS CLAIMED IS:

1. A method for transmitting data, comprising:
receiving data at a first data transfer rate;
buffering the data into a plurality of sequential
5 frames of a predetermined length of time;
arranging the frames into a byte of data; and
transmitting the byte of data to a communication bus
operable to receive data packets at a second data
transfer rate, wherein the byte is repetitively
10 transmitted a number of times greater than one and equal
to the second data transfer rate divided by the first
data transfer rate.

2. The method of Claim 1, wherein:
15 the first data transfer rate comprises approximately
sixteen or thirty-two kilobits per second; and
the second data transfer rate comprises sixty-four
kilobits per second.

20 3. The method of Claim 1, wherein the predetermined
length of time comprises approximately 0.125 microseconds.

4. The method of Claim 1, wherein the byte of data
comprises an eight-bit byte of data.

25 5. The method of Claim 1, wherein the number of times
comprises two or four times.

6. The method of Claim 1, further comprising:
receiving the byte of data at a processor;
buffering the byte of data into a plurality of
samples; and
retrieving one of a subset of the plurality of
samples, wherein the subset of the plurality of samples
includes a number of samples equal to the second data
transfer rate divided by the first data transfer rate.

7. A system, comprising:

a receiver operable to receive data packets at a first data transfer rate;

5 a processor operable to buffer the data into a plurality of sequential frames of a predetermined length of time and to arrange the frames into a byte of data; and

10 a transmitter operable to transmit the byte of data an integer number of times greater than one and equal to a second data transfer rate divided by the first data transfer rate.

15 8. The system of Claim 7, further comprising a signal processor operable to receive the byte of data, buffer the byte of data into a plurality of samples and retrieve one of a subset of the samples, the subset including a number of samples greater than one and equal to the second data transfer rate divided by the first data transfer rate.

20 9. The system of Claim 7, wherein the first data transfer rate comprises approximately sixteen, or thirty-two kilobits per second.

25 10. The system of Claim 7, wherein the frames comprise approximately 0.125 microsecond frames.

11. The system of Claim 7, wherein the byte of data comprises an eight-bit byte of data.

30 12. The system of Claim 7, wherein the second data transfer rate comprises approximately sixty-four kilobits per second.

13. The system of Claim 7, wherein the integer number of times comprises two or four times.

14. A method, comprising:

receiving a plurality of bytes of data at a first
data transfer rate, from a device operable to receive
data at a second data transfer rate and transmit the
bytes of data at the first data transfer rate;

buffering the bytes of data into a plurality of
samples; and

subsampling one of a subset of the plurality of
samples, wherein the subset of the plurality of samples
includes a number of samples greater than one and equal
to the second data transfer rate divided by the first
data transfer rate.

15. The method of Claim 14, wherein the first data
transfer rate comprises approximately sixty-four kilobits
per second.

16. The method of Claim 14, wherein the second data
transfer rate comprises sixteen or thirty-two kilobits per
second.

17. The method of Claim 14, wherein the number of
samples comprises two or four samples.

18. A system, comprising:

a receiver operable to receive bytes of data at a first data transfer rate; and

5 a processor operable to buffer the bytes of data into a plurality of samples and subsample one of a subset of the plurality of samples, wherein the subset of the plurality of samples includes an integer number of samples greater than one and equal to a second data transfer rate divided by the first data transfer rate.

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19. The system of Claim 18, wherein the central processing unit comprises a digital signal processor.

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20. The system of Claim 18, wherein the first data transfer rate comprises approximately sixty-four kilobits per second.

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21. The system of Claim 18, wherein the number of samples comprises two or four samples.

22. A system for processing transactions,
comprising:

a computer-readable medium; and

5 a computer program encoded on the computer-readable
medium, the computer program operable to receive data at
a first data transfer rate, buffer the data into a
plurality of sequential frames of a predetermined length
of time, pack the frames into a byte of data, and
transmit the byte of data to a communication bus operable
10 to receive data at a second data transfer rate, wherein
the byte is repetitively transmitted an integer number of
times greater than one and equal to the second data
transfer rate divided by the first data transfer rate.

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23. A system for processing transactions,
comprising:

a computer-readable medium; and

5 a computer program encoded on the computer-readable
medium, the computer program operable to receive a
plurality of bytes of data at a first data transfer rate,
from a device operable to receive data at a second data
transfer rate and transmit the bytes of data at the first
data transfer rate, buffer the bytes of data into a
10 plurality of samples, and subsample one of a subset of
the plurality of samples, wherein the subset of the
plurality of samples includes a number of samples greater
than one and equal to the ~~second~~^{first} data transfer rate
divided by the ~~first~~^{second} data transfer rate.

second